



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0240; Directorate Identifier 2011-SW-060-AD;**

**Amendment 39-17565; AD 2013-17-01]**

**RIN 2120-AA64**

**Airworthiness Directives; Eurocopter France Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Eurocopter France (Eurocopter) Model AS350 and AS355 helicopters. This AD requires inspecting the tail rotor control stop screws to determine if they are correctly aligned and adjusting the screws if they are misaligned. This AD is prompted by the discovery of a loose nut on the tail rotor control stop and a misaligned tail rotor control stop screw. The actions of this AD are intended to detect a loose nut or a misaligned stop screw, which, if not corrected, could limit yaw authority, and consequently, result in a loss of helicopter control.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact American Eurocopter

Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the foreign authority's AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Matt Fuller, Aviation Safety Engineer, Continued Operational Safety, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

On March 14, 2013, at 78 FR 16200, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Eurocopter Model AS350B, AS350BA, AS350B1, AS350B2, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, and AS355F2 helicopters with an autopilot installed; Model AS350B3 helicopters with an autopilot or modification 073252 installed; and Model AS355N and AS355NP helicopters with an autopilot or modification 071908 installed.

The NPRM proposed to require inspecting the tail rotor control stop screws to determine if they are correctly aligned and adjusting the screws if they are misaligned. The proposed requirements were intended to detect a loose nut or a misaligned stop screw, which, if not corrected, could limit yaw authority, and consequently, result in a loss of helicopter control.

The NPRM was prompted by AD No. 2011-0164, dated August 31, 2011, issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA issued AD No. 2011-0164 to correct an unsafe condition for Eurocopter Model AS350B, AS350BA, AS350BB, AS350B1, AS350B2, AS350B3, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters with either an autopilot or certain modifications installed. EASA advises that during take-off with a sling load, the pilot of a Model AS350B3 helicopter reached one of the yaw stops before its usual position. The inspection that followed revealed that a tail rotor control stop nut was loose and that the corresponding tail rotor control stop screw was “out of adjustment.” EASA states that this condition, if not detected and corrected, “can lead to the loss of adjustment of the affected stop and consequently limit yaw authority, possibly resulting in loss of control of the helicopter.”

## **Comments**

After our NPRM (78 FR 16200, March 14, 2013), was published, we received comments from one commenter.

## **Request**

The commenter suggested that an AD is unnecessary because operators should have already tightened the screw.

We disagree that an AD is not needed. More than one tightening of a screw is necessary to correct this unsafe condition. This AD also requires monitoring the stop screws through

repetitive inspections to determine whether a screw has become loose. Without these inspections, if a screw becomes loose and is not corrected, yaw authority could be limited, resulting in loss of helicopter control.

### **FAA's Determination**

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA, reviewed the relevant information, considered the comment received, and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

### **Differences Between this AD and the EASA AD**

The EASA AD requires contacting Eurocopter under certain conditions. This does AD not. The EASA AD applies to Eurocopter Model AS350BB helicopters. This AD does not because Model AS350BB does not have an FAA type certificate. However, this AD applies to Eurocopter Model AS350C and AS350D1 helicopters because they have an FAA type certificate and because they have similar tail rotor stop screw assemblies as the other applicable helicopter models. The EASA AD does not apply to the Model AS350C and AS350D1 helicopters.

### **Interim Action**

We consider this AD to be an interim action because Eurocopter is developing a modification to address the unsafe condition identified in this AD. After this modification is developed, approved, and available, we might consider additional rulemaking.

### **Related Service Information**

Eurocopter has issued Alert Service Bulletin (ASB) No. AS350-05.00.64 for Model AS350B, BA, BB, B1, B2, B3, and D civil helicopters and Model AS350L1 military helicopters,

and ASB No. AS355-05.00.59 for Model AS355E, F, F1, F2, N, and NP civil helicopters, both Revision 0 and both dated August 30, 2011. The ASBs specify inspecting the locking of the stop screws and, if warranted, adjusting the stops, marking the screw/nut assembly with a red line of paint, and periodically inspecting the paint line's alignment on the screw/nut assembly.

### **Costs of Compliance**

We estimate that this AD will affect 911 helicopters of U.S. Registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs:

- Inspecting the locking of the stop screws takes about a 0.4 work-hour for a labor cost of about \$34 per helicopter and \$30,974 for the U.S. fleet. No parts are needed.
- Adjusting the stop screws, if needed, requires about a 0.2 work-hour for a labor cost of \$17. No parts are needed.
- Painting the line requires a 0.1 work-hour for a labor cost of about \$9 per helicopter and \$8,199 for the U.S. fleet. No parts are needed.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

## **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866;
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):  
2013-17-01 **EUROCOPTER FRANCE HELICOPTERS:** Amendment 39-17565; Docket No. FAA-2013-0240; Directorate Identifier 2011-SW-060-AD.

#### **(a) Applicability.**

This AD applies to the following helicopters, certificated in any category:

- (1) Model AS350B, AS350BA, AS350B1, AS350B2, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, and AS355F2 helicopters with an autopilot installed;
- (2) Model AS350B3 helicopters with an autopilot or modification 073252 installed; and
- (3) Model AS355N and AS355NP helicopters with an autopilot or modification 071908 installed.

#### **(b) Unsafe Condition.**

This AD defines the unsafe condition as a loose nut or misaligned tail rotor control stop screw (stop screw). This condition could result in limited yaw authority and subsequent loss of helicopter control.

#### **(c) Effective Date.**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(d) Compliance.**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions.**

(1) Within 110 hours time-in-service (TIS), inspect the locking of the stop screws to determine whether the stop screws turn.

(i) If any stop screw turns, adjust the stop screw.

(ii) Mark a line of red paint on the screw-nut assembly as depicted in Section B-B, Figure 1 of Eurocopter Alert Service Bulletin (ASB) No. AS350-05.00.64 or ASB No. AS355-05.00.59, as applicable to your model helicopter. Both ASBs are Revision 0 and dated August 30, 2011.

(2) Thereafter, at intervals not to exceed 110 hours TIS, inspect the stop screws to determine whether the paint lines on the screw and the nut are aligned. If the red paint lines are not aligned, remove the paint, adjust the stop screw, and mark a new line of paint on the screw-nut assembly as depicted in Section B-B, Figure 1 of Eurocopter ASB No. AS350-05.00.64 or ASB No. AS355-05.00.59, as applicable to your model helicopter. Both ASBs are Revision 0 and dated August 30, 2011.

**(f) Special Flight Permits.**

A one-time flight permit may be granted, provided that the pilot has full yaw authority before flight.

**(g) Alternative Methods of Compliance (AMOCs).**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Aviation Safety Engineer, Continued Operational Safety, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a



principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information.**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2011-0164, dated August 31, 2011. You may view the EASA AD in the AD Docket on the Internet at <http://www.regulations.gov>.

**(i) Subject.**

Joint Aircraft Service Component (JASC) Code: 6720, tail rotor control system.

**(j) Material Incorporated by Reference.**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Eurocopter Alert Service Bulletin No. AS350-05.00.64, Revision 0, dated August 30, 2011.

(ii) Eurocopter Alert Service Bulletin No. AS355-05.00.59, Revision 0, dated August 30, 2011.

(3) For Eurocopter service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>.

(4) You may view this service information that is incorporated by reference in the AD Docket on the Internet at <http://www.regulations.gov>.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on August 12, 2013.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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